

**CLEAN VERSION OF PENDING CLAIMS**



**CIRCUIT BOARD**  
Applicant: Tongbi Jiang et al.  
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*Claims 1-25, as of October 21, 2002 (Date of Response to First Office Action).*

1. A circuit board having a circuit board thickness, the circuit board comprising:  
a core layer including one or more fibers; and  
a surface layer having a surface layer thickness that is between about 10% and about 30%  
of the circuit board thickness, the surface layer being free of fibers.
2. The circuit board of claim 1, wherein the core layer is fabricated from a resin in which the  
one or more fibers are embedded.
3. The circuit board of claim 1, wherein at least one of the one or more fibers comprises a  
glass fiber.
4. A circuit board having a circuit board thickness, the circuit board comprising:  
a core layer including a number of fibers; and  
a surface resin layer having a surface layer thickness that is between about 10% and about  
30% of the circuit board thickness.
5. The circuit board of claim 4, wherein the core layer is a polymeric composite material.
6. The circuit board of claim 4, wherein the core layer has a thickness of between about .006  
inches and .012 inches.

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7. A circuit board having a circuit board thickness, the circuit board comprising:  
a first layer having a first layer thickness that is between about 10% to 15% of the circuit board thickness, the first layer being free of fibers;  
a second layer having a second layer thickness that is between about 10% to 15% of the circuit board thickness; and  
a core layer located between the first layer and the second layer, the core layer including a number of fibers.

8. (Amended) The circuit board of claim 7, wherein the core layer has greater mechanical strength than the first layer.

9. (Amended) The circuit board of claim 7, wherein the core layer has greater mechanical strength than the second layer.

10. A circuit board having a circuit board thickness, the circuit board comprising:  
a first resin layer having a first layer thickness that is between about 10% and about 15% of the circuit board thickness;  
a second resin layer having a second layer thickness that is between about 10% and about 15% of the circuit board thickness; and  
a core layer located between the first resin layer and the second resin layer, the core layer including a number of fibers.

11. The circuit board of claim 10, wherein the first resin layer is free of fibers.

12. The circuit board of claim 11, wherein the second resin layer is free of fibers.

13. A circuit board assembly comprising:
  - a first circuit board;
  - a second circuit board coupled to the first circuit board, the second circuit board having a thickness and including a number of fibers having a fiber thickness of between about .001 inches and about .002 inches, the second circuit board having a surface located at a distance of between about 10 % to 20% of the thickness away from the number of fibers; and
  - a die coupled to the second circuit board.
14. The circuit board assembly of claim 13, wherein the die includes a dynamic random access memory (DRAM).
15. The circuit board assembly of claim 13, wherein the die includes a processor.
16. A circuit board assembly comprising:
  - a first circuit board;
  - a second circuit board coupled to the first circuit board, the second circuit board having a thickness and including a number of fibers having a fiber thickness of between about .001 inches and about .002 inches, the second circuit board having a surface located at a distance of between about 10 % and about 30% of the thickness away from the number of fibers; and
  - a die coupled to the second circuit board.
17. The circuit board assembly of claim 16, wherein the die includes an amplifier.
18. The circuit board assembly of claim 16, wherein the die includes an application specific integrated circuit (ASIC).

19. A circuit board assembly comprising:
  - a first circuit board;
  - a second circuit board coupled to the first circuit board, the second circuit board comprising:
    - a core layer including a number of fibers; and
    - a surface layer having a surface layer thickness that is between about 10% and about 30% of the circuit board thickness, the surface layer being free of fibers; and
    - a die coupled to the second circuit board.
20. The circuit board assembly of claim 19, wherein the second circuit board has a thickness and includes a number of fibers having a fiber thickness of between about .001 inches and about .002 inches, the second circuit board has a surface located at a distance of between about 10% and 30% of the thickness away from the number of fibers.
21. A circuit board assembly comprising:
  - a first circuit board;
  - a second circuit board coupled to the first circuit board, the second circuit board having a thickness and including a number of fibers having a fiber thickness of between about .001 inches and about .002 inches, the second circuit board having a first surface located at a first distance of between about 10 % to 15% of the thickness away from the number of fibers and a second surface located at a second distance of between about 10% to 15% of the thickness away from the number of fibers; and
  - a die coupled to the second circuit board.
22. The circuit board assembly of claim 21, wherein the first circuit board is a computer system circuit board.

23. The circuit board assembly of claim 21, wherein the second circuit board is a memory circuit board.

24. A circuit board assembly comprising:

a first circuit board;

a second circuit board coupled to the first circuit board, the second circuit board having a thickness, the second circuit board having a first surface located at a first distance of between about 10 % and about 15% of the thickness away from a number of fibers and a second surface located at a second distance of between about 10% and about 15% of the thickness away from the number of fibers; and

a die coupled to the second circuit board.

25. The circuit board assembly of claim 24, wherein the die is coupled to the second circuit board by an adhesive.